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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Presley Hays et al.                      Art Unit: 2625  
Serial No.: 10/728,698                                  Examiner: Unknown  
Filed : December 5, 2003  
Title : AUTOMATED METHOD FOR IMAGE ANALYSIS OF RESIDUAL  
         PROTEIN

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Applicants call attention to the attached Information  
Disclosure Statement and documents listed on form PTO-1449.

This filing is being made before the receipt of a first  
Office action on the merits. No fee is required.

The documents are in the English language; hence no concise  
explanation is necessary per Rule 98(a)(3).

Copies of the US patents are not being provided per the  
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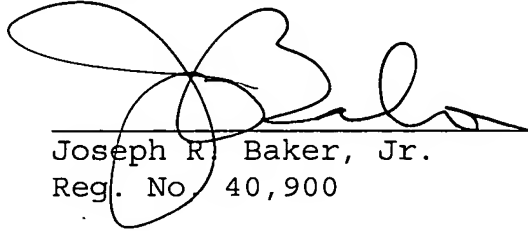
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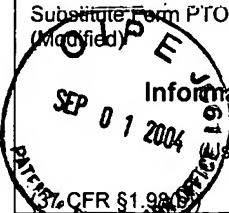
Respectfully submitted,



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Substitute Form PTO-1449 (Modified) 	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. <b>10225-003003</b>	Application No. <b>10/728,698</b>
<b>Information Disclosure Statement</b> <b>by Applicant</b> (Use several sheets if necessary)		Applicant <b>Presley Hays et al.</b>	
		Filing Date <b>December 5, 2003</b>	Group Art Unit <b>2625</b>

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	3,824,393	07/16/1974	Alfred E. Brain			
	AB	3,851,972	12/03/1974	Smith et al.			
	AC	4,011,004	03/08/1977	Levine et al.			
	AD	4,196,265	07/01/1980	Koprowski et al.			
	AE	4,249,825	02/1981	Shapiro			
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	AH	4,513,438	04/23/1985	Graham et al.			
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	AJ	4,656,594	04/07/1987	Ledley			
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	AL	4,700,298	10/13/1987	Palcic et al.			
	AM	4,741,043	04/1988	Bacus			
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	AQ	5,003,165	03/26/1991	Sarfati et al.			
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	AT	5,051,816	05/1991	Harrison et al.			
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	AZ	5,233,684	08/03/1993	Ulichney et al.			
	AAA	5,254,845	10/19/1993	Burgess et al.			

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EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	ABB	5,257,182	10/26/1993	Luck et al.			
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	AEE	5,317,140	05/1994	Dunthorn			
	AFF	5,321,545	06/14/1994	Bisconte			
	AGG	5,333,207	07/26/1994	Mark R. Rutenberg			
	AHH	5,338,924	08/16/1994	Barrett et al.			
	AII	5,352,613	10/1994	Tafas et al.			
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	AMM	5,449,622	09/12/1995	Yabe et al.			
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	APP	5,469,353	11/21/1995	Pinsky et al.			
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	ATT	5,515,172	05/07/1996	Shiau			
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	AVV	5,533,628	07/09/1996	Tao			
	AWW	5,583,666	12/10/1996	Ellson et al.			
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	AAAA	5,635,402	06/03/1997	Alfano et al.			
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	ACCC	5,647,025	07/08/1997	Frost et al.			
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	AHHH	5,706,093	01/06/1998	Yashuhiro Komiya			
	AIII	5,726,009	03/10/1998	Connors et al.			
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	ARRR	5,867,598	02/02/1999	Ricardo L. de Queiroz			
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	ATTT	5,880,473	03/09/1999	Ginestet, Jacques			
	AUUU	5,888,742	06/27/1999	Lal et al.			
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	ACCCC	6,011,595	01/2000	Henderson et al.			

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	ADDDD	6,031,929	02/29/2000	Maitz et al.			
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	AFFFF	6,072,570	06/06/2000	Chipman et al.			
	AGGGG	6,097,838	08/2000	Klassen et al.			
	AHHHH	6,101,265	08/08/2000	Bacus et al.			
	AIIII	6,117,985	09/12/2000	Thomas et al.			
	AJJJJ	6,122,400	09/2000	Reitmeier			
	AKKKK	6,125,194	09/26/2000	Yeh et al.			
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	AMMMM	6,151,535	11/21/2000	Ehlers			
	ANNNN	6,169,816	01/02/2001	Ravkin, Ilya			
	AOOOO	6,215,892	04/10/2001	Douglass et al.			
	APPPP	6,215,894	04/10/2001	Zeleny et al.			
	AQQQQ	6,225,636	05/01/2001	Ginestet, Jacques			
	ARRRR	6,226,392	05/01/2001	Bacus et al.			
	ASSSS	6,226,636	05/01/2001	Abdel-Mottalep et al.			
	ATTTT	6,236,031	05/22/2001	Mitsunori Ueda			
	AUUUU	6,238,892	05/29/2001	Mercken et al.			
	AVVVV	6,259,807	07/10/2001	Ravkin, Ilya			
	AWWWW	6,281,874	08/28/2001	Sivan et al.			
	AXXXX	6,290,907	09/18/2001	Takahasi et al.			
	AYYYY	6,313,452	11/06/2001	Paragano et al.			
	AZZZZ	6,374,989	04/23/2002	Vany Dyke, Jr. et al.			
	AAAAAA	6,418,236	07/09/2002	Ellis et al.			
	ABBBBB	6,466,690	10/15/2002	Bacus et al.			
	ACCCCC	2002/0164810	11/07/2002	Dukor et al.			
	ADDDDD	2002/0067409	06/06/2002	Hararai et al.			

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U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AEEEEEE	2003/0124589	07/03/2003	Piper, James R.			
	AFFFFF	2003/0170703	09/11/2003	Piper et al.			

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AGGGGG	0213666	03/11/1987	EPO				
	AHHHHH	0557871	09/01/1993	EPO				
	AIIIII	0713086	05/22/1996	EPO				
	AJJJJJ	3735091	04/28/1998	Germany				
	AKKKKK	3340647	05/23/1985	Germany				
	ALLLLL	92/17848	10/15/1992	WIPO				
	AMMMMM	97/20198	06/05/1997	WIPO				
	ANNNNN	00/49391	08/24/2000	WIPO				
	AOOOOO	01/37206	05/25/2001	WIPO				
	APPPPP	03/014795	02/20/2003	WIPO				

Other Documents (include Author, Title, Date, and Place of Publication)		
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	AQQQQQ	Ballard, D.H., et al. "Computer Vision" <i>Prentice-Hall, Inc., Englewood Cliffs, NJ</i> 07632 pp. 65-70 and 149-165 (1982)
	ARRRRR	Bander, N.H., "Monoclonal Antibodies to Renal Cancer Antigens", Vol. 18, Supp. 2, pp. 10-12, 1990. Abstract
	ASSSSS	Duda R.O., et al. "Pattern Classification and Scene Analysis" <i>J. Wiley &amp; Sons, Inc.</i> pp. 228-239 and 276-284 (1973)
	ATTTTT	McKeough et al., "A Low-Cost Automatic Translation and Autofocusing Systems for a Microscope", <i>Measurement Science and Technology, IOP Publishing, Bristol, GB</i> , Vol. 6, NO. 5, pp. 583-587, May 1, 1995
	AUUUUU	Roca et al., "New Autofocusing Algorithm for Cytological Tissue in a Microscopy Environment", <i>Optical Engineering, Soc. Of Photo-Optical Instrumentation Engineers, Bellingham, US</i> , Vol. 37, No. 2, pp. 635-641, February 1, 1998
	AVVVVV	Press, Michael F. et al., "Her-2/ <i>nue</i> Expression in Node-negative Breast Cancer: Direct Tissue Quantitation by Computerized Image Analysis and Association of Overexpression with Increased Risk of Recurrent Disease", <i>Cancer Research</i> 53, 4960-4970, Oct. 1993

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Other Documents (include Author, Title, Date, and Place of Publication)		
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	WWWWW	Diamond, David A. et al., "Computerized Image Analysis of Nuclear Shape as a Prognostic Factor for Prostatic Cancer", The Prostate 3:321-332 (1982)
	AXXXXX	Levine, Gary M. et al., "Quantitative Immunocytochemistry by Digital Image Analysis: Application to Toxicologic Pathology", XICOLOGIC Pathology ISSN:0192-6233, Vol. 15, No. 3, pp. 303-307, 1987
	AYYYYY	Enestrom, Sverker et al., "Quantitative Ultrastructural Immunocytochemistry Using a Computerized Image Analysis System", Stain Technology, Vol. 65, No. 6, pp. 263-278, 1990
	AZZZZZ	John C. Russ, "Image Processing Handbook, 2 <sup>nd</sup> Edition", Library of Congress Cataloging-in-Publication Data, 1995
	AAAAAAA	ChromaVision, "Products", <a href="http://www.chromavision.com/products/index.htm">http://www.chromavision.com/products/index.htm</a>
	ABBBBBB	Pratt, William K., "Digital Image Processing, 2 <sup>nd</sup> Edition," A Wiley-Interscience Publication, 1991
	ACCCCCC	Castleman, Kenneth R., "Digital Image Processing", Library of Congress Cataloging-in-Publication Data, 1996
	ADDDDDD	Ledley, R.S. et al., "Fundamentals of True-Color Image Processing", IEEE, pp. 791-795, 1990
	AEEEEEE	Mize, R. Ranney et al., "Quantitative immunocytochemistry using an image analyzer. I. Hardware evaluation, image processing, and data analysis", Journal of Neuroscience Methods, 26 (1988) 1-24
	AFFFFFFF	Caulet S. et al., "Comparative Quantitative Study of Ki-67 Antibody Staining in 78 B and T Cell Malignant Lymphoma (ML) Using Two Image Analyser Ssystems", Path. Res. Pract. 188, 490-496 (1992)
	AGGGGGG	Goldschmidt, R.A. et al., "Automated Immunohistochemical Estrogen Receptor Staining and Computerized Image Analysis-Comparison with Biochemical Methods", Supplied by the British Library - "The world's knowledge" <a href="http://www.bl.uk">www.bl.uk</a>
	AHHHHHH	Gross, Douglas S. et al., "Quantitative Immunocytochemistry of Hypothalamic and Pituitary Hormones: Validation of an Automated, Computerized Image Analysis System", The Journal of Histochemistry and Cytochemistry, Vol. 33, No. 1, pp. 11-20, 1985
	AIIIIII	Maudelonde, T. et al., "Immunostaining of Cathepsin D in Breast Cancer: Quantification by Computerised Image Analysis and Correlation with Cytosolic Assay", Eur J Cancer, Vol. 28A, No. 10, pp. 1686-1691, 1992
	AJJJJJJ	Aziz, Douglas C., "Quantitation of Estrogen and Progesterone Receptors by Immunocytochemical and Image Analyses", Anatomic Pathology, From Cytometrics, Inc., Division of Specialty Laboratories, pp. 105-111, July 1991
	AKKKKKK	Unnerstall, James R. et al., "New Approaches to Quantitative Neuropathology: Multivariate Analysis of Morphologic and Neurochemical Measures", Neurobiology of Aging, Vol. 8, pp. 567-569, Pergamon Journals Ltd., 1987
	ALLLLLL	Schultz, Daniel S., et al., "Comparison of Visual and CAS-200 Quantitation of Immunocytochemical Staining in Breast Carcinoma Samples", Analytical and Quantitative Cytology and Histology, Vol. 14, No. 1, Feb. 1992
	MMMMMMM	Horsfall, D.J. et al., "Immunocytochemical assay for oestrogen receptor in fine needle aspirates of breast cancer by video image analysis", Br. J. Cancer (1989), 59, 129-134
	ANNNNNN	McClelland, Richard A. et al., "Automated Quantitation of Immunocytochemically Localized Estrogen Receptors in Human Breast Cancer", Cancer Research 50, 3545-3550, June 1990

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	AOOOOOO	Baddoura, Fady K. et al., "Image Analysis for Quantitation of Estrogen Receptor in Formalin-Fixed Paraffin-Embedded Sections of Breast Carcinoma", Modern Pathology, Vol. 4, No. 1, 1991, pp. 91 – 95
	APPPPPP	Kerns, B.J. et al., "Estrogen receptor status evaluated in formalin-fixed paraffin embedded breast carcinomas determined by automated immunohistochemistry and image analysis", Proceedings of the American Association for Cancer Research, Vol. 35, March 1994

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